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(54) **LEAKAGE DETECTING DEVICE OF BLAST FURNACE TUYERE COOLING WATER**

(57) Abstract:

PURPOSE: To improve the detection accuracy of leakage of cooling water by providing a feed water flow rate detecting header and a discharge water detecting header as well as a pair of flowmeters to the apparatus and measuring the differential flow rates between multiple tuyeres and feed and discharge water pipelines corresponding to these tuyeres.

CONSTITUTION: At the measuring of a tuypere 8, the water supply side 3-way automatic ball valve 4 and discharge water side 3-way automatic ball valve 5 are changed over to change the cooling water channel to the B direction by a sequence unit 11. The cooling water flows from the feed water side of a flowmeter 7 to a feed water flow rate detecting head 2, from where it flows in the B direction of the ball valve 4 and enters the tuyere 8. This waste cooling water flows through the ball valve 5 in the B direction, enters a waste water flow rate detecting header 3 and enters a tuyere discharge water trough 9 from the discharge water side of the flowmeter 7. This operation is performed in the order of the tuyeres 8, 8', 8". A calibration channel wherein the cooling water flows from the flowmeter 7 into the feed water flow rate detecting header 2 and passes through the flow rate calibrating valve 6 then through the discharge water flow rate detecting header 3, flowmeter 7 is created for measurement of this feed and waste water flows. The differences of the feed and waste water flows are obtained and are used as the instrument correcting values at the measurement channel.